MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

DATE OF PREP AUGUST 1983 (Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

Section I

MANUFACTURER'S NAME BOSTIK WEST/DIVISION OF USM CORPORATION/EMHART

STREET ADDRESS 20846 SOUTH NORMANDIE AVENUE CITY. STATE, AND ZIP CODE TORRANCE, CALIFORNIA 90502

EMERGENCY TELEPHONE NO.

(213)320-6800

PRODUCT CLASS

TRADE NAME BOSTIK

EPOXY

DPM 110-9250 GREEN SEMI GLOSS

MANUFACTURERS CODE IDENTIFICATION

453-3-48

Catalyst: CA-118

Mix Ratio: 3 parts 453-3-48 (BASE)

to 1 part CA-118 by volume.

Section II — HAZARDOUS INGREDIENTS

| INGREDIENT 453-3-48 (BASE ONLY) | CAS NO. | PERCENT (WI.) | Ti PPM | .V mg/M³ | LEL | VAPOR PRESSURE |
|---------------------------------|-----------|------------------|-----------|-------------|-----|-------------------|
| | | , | | | | |
| METHYL ETHYL KETONE | 78-93-3 | 20-25 | 200 | | 1.8 | 70 |
| XYLENE | 1330-20-7 | 5-10 | 100 | | 1.0 | 7 |
| TOLUENE | 108-88-3 | 5-10 | 200 | | 1.2 | 22 |
| BUTYL ACETATE | 123-86-4 | < 5 | 150 | | 1.7 | 8 |
| CELLOSOLVE ACETATE | 111-15-9 | < 5 | 100 | | 1.7 | 2 |
| BUTYL CELLOSOLVE | 111-76-2 | < 5 | -50 | | 1.1 | 1 |
| BUTYL ALCOHOL | 71-36-3 | \(\) 1 | 100 | · | 1.7 | 4 |
| | | | | | | |
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Section III - PHYSICAL DATA

BOILING RANGE 176 to 340°F.

VAPOR DENSITY

XX HEAVIER

LIGHTER, THAN AIR

EVAPORATION RATE

FASTER XX SLOWER, THAN ETHER

PERCENT VOLATILE BY VOLUME

62.6%

WEIGHT PER GALLON

9.8 lbs.

Section IV — FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY RED LABEL, FLAMMABLE

(MIN.)
FLASH POINT 23°F. TAG CLOSED CUP

LEL 1.0

EXTINGUISHING MEDIA

EXCLUDE AIR - USE FOAM, CO2, STEAM, WATER FOG, DRY CHEMICALS. DO NOT USE WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS

VAPOR FORMS EXPLOSIVE MIXTURE WITH AIR BETWEEN

UPPER AND LOWER EXPLOSION LIMITS.

SPECÍAL FIRE FIGHTING PROCEDURES

DO NOT USE WATER, EXCLUDE AIR, USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL.

| Section V — HEALTH HAZARD DATA |
|---|
| THRESHOLD LIMIT VALUE: See Section II EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat and eyes. |
| Emergency and first aid procedures: Skin Exposure: Wash affected area with soap and water. Eye Exposure; Flush with water for at least 15 minutes, consult physician. Ingestion: Consult physician immediately. Inhalation: Remove victim to fresh air, consult physician. |
| Section VI — REACTIVITY DATA |
| Incompatability (Materials to avoid): Strong oxidizing agents, Inorganic acids Sparks & Open Hazardous Decomposition Products: On combustion CO, CO ₂ , Oxides of nitrogen. HAZARDOUS POLYMERIZATION MAY OCCUR XXX WILL NOT OCCUR |
| Section VII — SPILL OR LEAK PROCEDURES |
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear tumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid wis sawdust or oil absorbing compound. Wash area with detergent & water. Consult disposal expert and ensure conformity with local regulations. |
| Section VIII — SPECIAL PROTECTION INFORMATION |
| RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area. Mechanical: Explosion-proof ventilation equipment. No smoking or open lights. VENTILATION: Face velocity > 60 fpm in confined area. Protective Gloves: Chemically resistant gloves. EYE PROTECTION: Chemical splash goggles or face shield DTHER PROTECTIVE EQUIPMENT: Eye bath & safety shower. |
| Section IX — SPECIAL PRECAUTIONS |
| RECAUTIONS TO BE TAKEN IN HANDLING AND STORING . Material is consisting to moisture & ale all |

tightly closed containers. Do Not handle or store near flame, heat or strong exidants. Adequate retain product residues (Vapor, liquid, etc).

All handling equipment should be electrically grounded. Treat as a very flammable liquid.

Lee A. Dickinson Technical Service Manager

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP 10.

10-81

Section I

MANUFACTURER'S NAME BOSTIK WEST, DIV. OF USM CORPORATION, AN EMHART UNIT

STREET ADDRESS 20846 So. Normandie Ave. CITY. STATE. AND ZIPCODE TOTTANCE, Ca. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS

AMINE ABDUCT.

TRADE NAME

BOSTIK

MANUFACTURERS CODE IDENTIFICATION

CA-118

Catalyst for: 453-3-Series, 463-3-Series

463-3-8, 454-3-Series. Mix Ratio: 3 parts

Base to 1 part CA-118 by volume.

Section II — HAZARDOUS INGREDIENTS

| INGREDIENT CA-118 Epoxy Catalyst | CAS No. | PERCENT (Wt.) | T! PPM | .V mg/M³ | LEL | VAPOR PRESSURE IIIII Hg. |
|----------------------------------|----------|------------------|-----------|-------------|-----|--------------------------------|
| Methyl ethyl ketone | 78-93-3 | 25-30 | 200 | | 1.8 | 70.0 |
| Butyl alcohol | 71-36-3 | 20-25 | 100 | | 1.7 | 4.0 |
| Butyl acetate | 123-86-4 | 20–25 | 150 | | 1.7 | 8.0 |
| Butyl cellosolve | 111-76-2 | 10-15 | 50 | | 1.1 | 1.0 |
| .Toluene | 108-88-3 | < 5.0 | 200 | | 1.2 | 22.0 |
| Diethylenetriamine(DETA) | 111-40-0 | Trace | 1.0 | | 1.4 | < 1.0 |
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Section III — PHYSICAL DATA

BOILING RANGE

176-340° F.

VAPOR DENSITY

X HEAVIER

LIGHTER, THAN AIR

EVAPORATION RATE

FASTER

X SLOWER, THAN ETHER

PERCENT VOLATILE
BY VOLUME

87%

WEIGHT PER GALLON 7 (

7.0 lbs.

Section IV — FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY

Red Label, Flammable

(Min) FLASH POINT

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23° F. Tag Closed Cup

LEL 1.1

EXTINGUISHING MEDIA

Exclude air - Use foam, CO_2 , steam, water fog,

dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between

upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect personnel.

| Section V — HEALTH HAZARD DATA |
|---|
| THRESHOLD LIMIT VALUE: See Section II |
| EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes. |
| Emergency and first aid procedures: Skin Exposure: Wash affected area with soap and water. |
| Eye Exposure: Flush with water for at least 15 minutes, consult physician. Ingestion: Consult physician immediately. Inhalation: Remove victim to fresh air., consult physician. |
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| |
| Section VI — REACTIVITY DATA |
| STABILITY UNSTABLE KXX STABLE CONDITIONS TO AVOID: Storage at high temperatures. |
| Incompatability(Materials to avoid): Strong oxidizing agents. Sparks & open flame |
| Hazardous Decomposition Products: On combustion CO, CO ₂ , Aldehydes and other organics, oxides |
| Of nitrogen. HAZARDOUS POLYMERIZATION MAY OCCUR XXX WILL NOT OCCUR CONDITIONS TO AVOID |
| Section VII — SPILL OR LEAK PROCEDURES |
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED. [] iminate accurate |
| Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel awa Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand o wastebsposal werthought disposal average a water. |
| Consult disposal expert and ensure conformity with local regulations. |
| Section VIII — SPECIAL PROTECTION INFORMATION |
| RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area. |
| Mechanical: Explosion-proof ventilation equipment. No smoking or open lights. |
| |
| VENTILATION : Face velocity $>$ 60 fpm in confined area |
| |
| Protective Clause Clause |
| Protective Gloves: Chemically resistant gloves. EYE PROTECTION: Chemical splash goggles or face shield. |
| OTHER PROTECTIVE EQUIPMENT: Eye bath & Safety Shower. |
| Section IX — SPECIAL PRECAUTIONS |
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Do No handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied - these containers retain product residues (vapor, liquid, et other precautions |
| All handling equipment should be electrically grounded. Treat as a very flammable liquid. |
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BOE-C6-0208041

Lee A. Dickinson Technical Service Manager